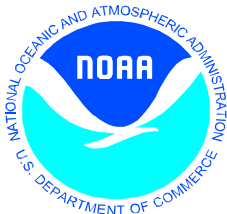


VALLEY WEATHER WIND



Spring 2008

A Newsletter for Emergency Managers, Core Storm Spotters, Media, and Public Officials in Eastern Nebraska and Southwest Iowa

Comments and suggestions are always welcome.
Your feedback is very important to us!

Please contact us by telephone, e-mail, or regular mail.

**National Weather Service
6707 N 288th Street
Valley, Nebraska 68064**

This publication also is available on-line at
<http://www.crh.noaa.gov/oax/news/newsletter.pdf>

Chief Editors:

Van DeWald / Cathy Zapotocny



**National Weather Service
Omaha/Valley, Nebraska**

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Web Site: <http://weather.gov/omaha>

E-mail: w-oax.webmaster@noaa.gov

NWS Omaha/Valley Welcomes New Meteorologist in Charge

I grew up on a farm south of Battle Creek, Nebraska (near Norfolk) where my parents still reside. I observed my first tornado from the end of the lane on this farm at a very young age and my interest in meteorology was planted at that time.

I actually caught the weather bug while serving four years in the U.S. Navy (1975-1979). After the service, I accepted a position in the National Weather Service (NWS) at North Platte. I completed my degree requirements at San Jose State in 1988 and accepted my first Meteorologist in Charge position (MIC) at the NWS in Moline, IL in 1990. After arriving in the Quad Cities, I helped the office move two times, with the last move to the new Warning and Forecast Office (WFO) in Davenport and was selected as the Warning Coordination Meteorologist. In October of 2002, I accepted the MIC position at the NWS at Pocatello, ID. This was my first venture into the challenges of forecasting in complex terrain, plus the additional challenges of fire weather forecasting. In March of 2006, I became the MIC at the NWS in Bismarck, ND. We love the west and the friendly people in North Dakota.



Jim Meyer - Meteorologist in Charge

I am excited and humbled to be the newly selected MIC at the Omaha NWS. My wife and I look forward to "coming home" and I look forward to working with a great crew.

I have a wife, three children and five grandchildren, so besides work, I manage to keep very busy just trying to keep up with the wife, kids, and grandchildren. One daughter is in Kentucky and another daughter is in Wisconsin. My son just completed five years of service in the Coast Guard and is currently enrolled in the Police Academy in St. Louis.

**Severe Weather
Awareness Week**

April 7-11, 2008



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2008 Severe Weather Awareness Week / 2007 Tornado Statistics

by Cathy Zapotocny, Meteorologist

This year, Severe Weather Awareness Week runs from April 7th through the 11th. Severe Weather Awareness Week is set aside for emergency management officials, the media, and the general public to raise severe weather awareness and to test communications, procedures, and safety response. A tornado drill will be held between 10 am and 11 am on Wednesday, April 9th. In addition, a second test tornado warning will be sent at 7 pm. Should severe weather be in the area, the tornado drill will be held on Thursday, the 10th of April.

2007 Tornado Statistics

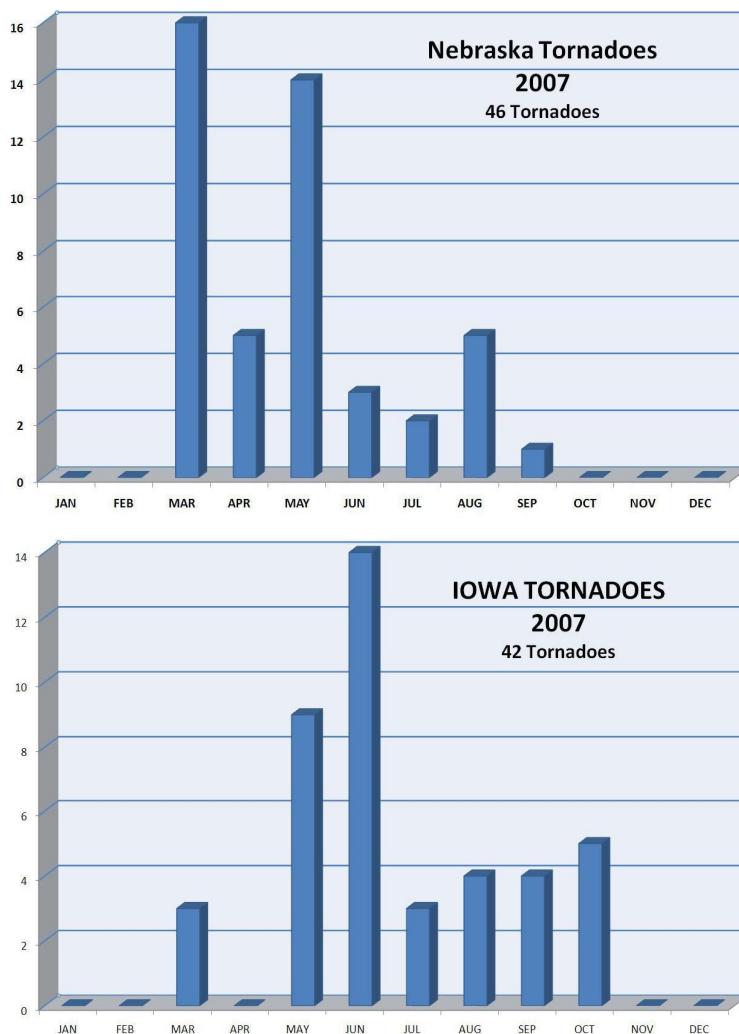
The graphs to the right display the monthly distribution of tornadoes for Nebraska and Iowa.

Nebraska had a below normal year for tornadoes with 46. This was four below the 30-year (1978 to 2007) average of 50. The majority of tornadoes occurred early in the season, during the months of March and May. Iowa had 42 tornadoes in 2007 and this was 5 below the 28-year (1980 to 2007) average of 47. Iowa's tornadoes occurred mainly during the months of May and June with a higher frequency than normal of August, September, and October tornadoes. During a typical tornado season, the peak for tornadoes in both Nebraska and Iowa is during the months of May and June.

The graph on page 3 shows the fluctuation of tornadoes from year to year across Eastern Nebraska and southwest Iowa (the OAX County Warning Area (CWA)). The chart on page 3 is a breakdown of the Enhanced Fujita (EF) scale ratings associated with each tornado.

In 2007, the OAX CWA had a total of 20 tornadoes. This was above the 1950-2007 average of 15. For 2007, most of the tornadoes were concentrated during the month of May with little activity the rest of the season. On average, May and June are the peak tornado months for the OAX CWA with five tornado occurrences each month. According to modern tornado statistics (after 1950), the greatest number of tornadoes that have been confirmed in eastern Nebraska and southwest Iowa during a season was 36 in 1992. The least number of confirmed tornadoes was zero in 2005 and in 1951.

The most active tornado day in 2007 was on the 5th of May. Thunderstorms initially erupted over eastern Nebraska, spawning ten tornadoes across Knox, Boone, Saline, and Jefferson counties during the afternoon. Activity in the evening shifted to southwest Iowa with five tornadoes across Mills, Montgomery, Fremont, and Pottawattamie counties. While eight of the tornadoes on the 5th of May were rated EF-0, there were five EF-1s, and two EF-2s. An EF-2 in Knox County headed toward the Lewis and Clark Recreation Area. The tornado injured three people and resulted in \$1 million in damage. The other EF-2 rated tornado on May 5th hit parts of southwest Iowa. Northwest of Red Oak, the tornado



2007 Nebraska and Iowa tornadoes by month

2007 Tornado Statistics Con't.

Eastern Nebraska and Southwest Iowa

2007 Season Tornado Total: 20

EF-rating Totals: EF-0 – 11, EF-1 – 7,

EF-2 – 2, No tornadoes of EF3 rating or greater

Deaths: 0

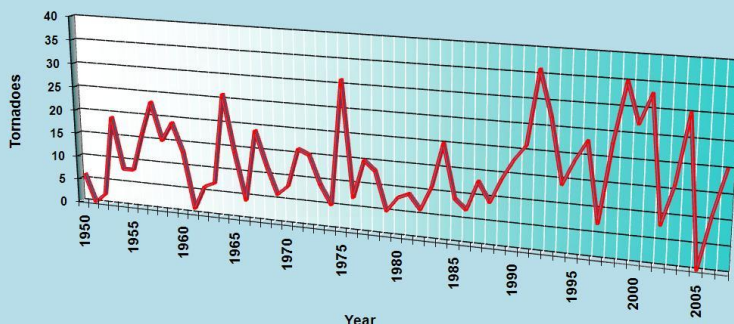
Injuries: 3

Monthly Breakdown

EF-ratings

January:	0	None
February:	0	None
March:	1	1- EF-1
April:	1	1- EF-0
May:	15	8- EF-0 5- EF-1 2- EF-2
June:	0	None
July:	0	None
August:	2	1 – EF-0 1- EF-1
September:	1	1 – F0
October:	0	None
November:	0	None
December:	0	None

Tornadoes in Ern. Nebraska and SW Iowa
1950-2007

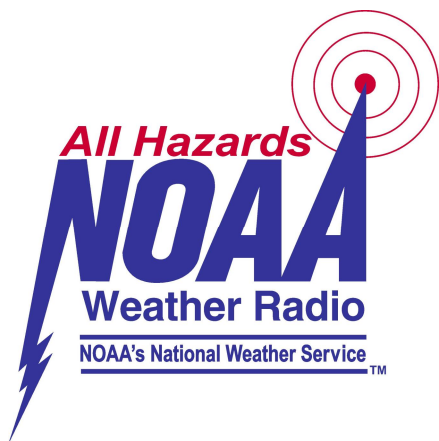


County Warning Area tornadoes-by-year graph
since 1950 provided by Brian Smith

was on the ground for nearly 5 miles and did damage to a house and outbuildings. The EF-2 tornado then moved into Pottawattamie county southeast of Macedonia and was on the ground for another 11.5 miles.

NOAA Weather Radio Programming Event at the Peony Park Hy-Vee In Omaha

On April 12th from 11am-3pm, the local Peony Park Hy-Vee at 78th and Cass Street in Omaha will partner with local meteorologists to help customers program their NOAA Weather All Hazards Radios (NWR)



NWR is a unique 24-hr nationwide communications system that provides broadcasts of local weather information and warnings of severe weather along with hazardous conditions that may affect your local community. NWR has over 900 stations across the country. These stations broadcast on one of seven VHF stations with a frequency between 162.400 MHz and 162.550 MHz.

The National Weather Service does not manufacture, sell, or endorse any particular make or model of receiver. For a list of NWR radio features and manufacturers check out the following link:
<http://www.nws.noaa.gov/nwr/nwrrcvr.htm>

Detailed information on our local transmitters and coverage maps along with programming can be found at: http://www.crh.noaa.gov/oax/?n=nwr_main

Streaming NWR audio can be found at: <http://www.nws.noaa.gov/nwr/streamaudio.htm#livestream>

Severe Weather Outbreaks this Year

by Cathy Zapotocny, Meteorologist

This year's severe weather season has gotten off to a quick start with preliminary reports of 516 tornadoes according to the Storm Prediction Center (SPC). The SPC graphic to the right and the table below illustrate how far ahead the number of tornadoes is in 2008 compared to the last three years and the ten-year average.

Monthly Tornado Reports	2008	3-Year Average
January	136	34
February	232	25
March	148	128
Total	516	187

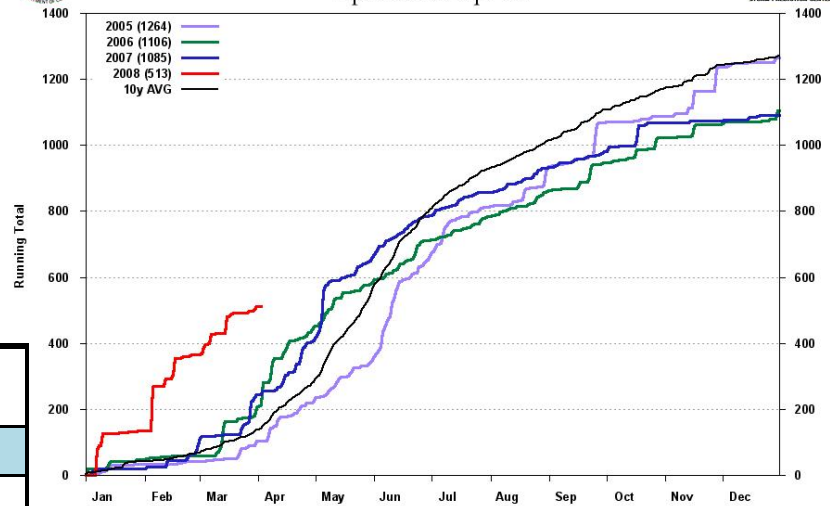
January 7-11, 2008

Rare January tornadoes occurred on the 7th from Missouri to Wisconsin. Two tornadoes touched down in southeast Wisconsin. Only one other time since 1950 has a tornado been reported in Wisconsin in January and that was in 1967. The map to the right depicts the tornado tracks and the Enhanced Fujita scale rating for each tornado. The Storm Prediction Center storm reports are displayed on the graphic below.

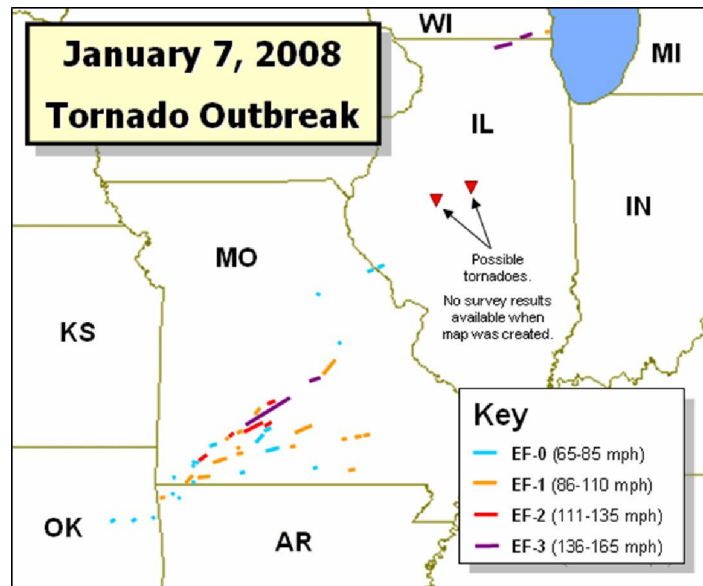
From January 7th to the 11th, there were 127 reports of tornadoes and 5 fatalities. 75 of those reports and four of the fatalities were on the 7th.



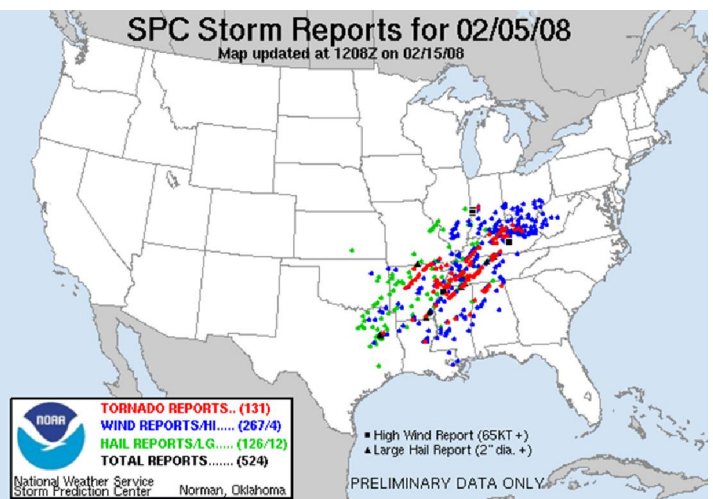
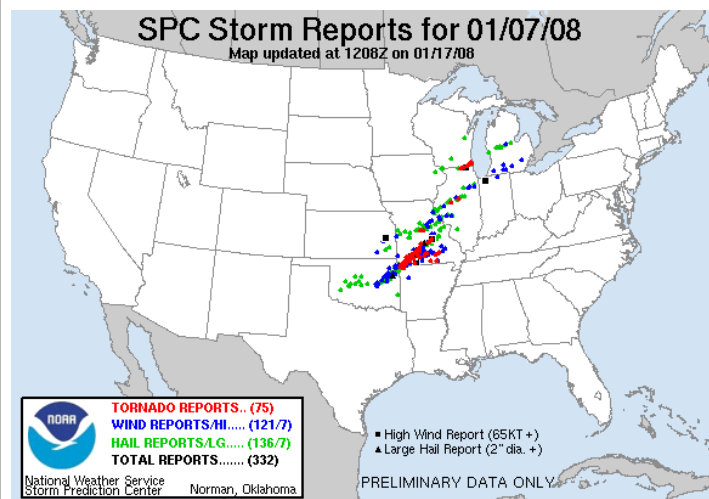
SPC Annual Tornado Trends
Updated: 02-Apr-08



Monthly Preliminary Tornado Statistics through April 2, 2008



Tornado track map courtesy of the NWS Milwaukee/Sullivan, WI

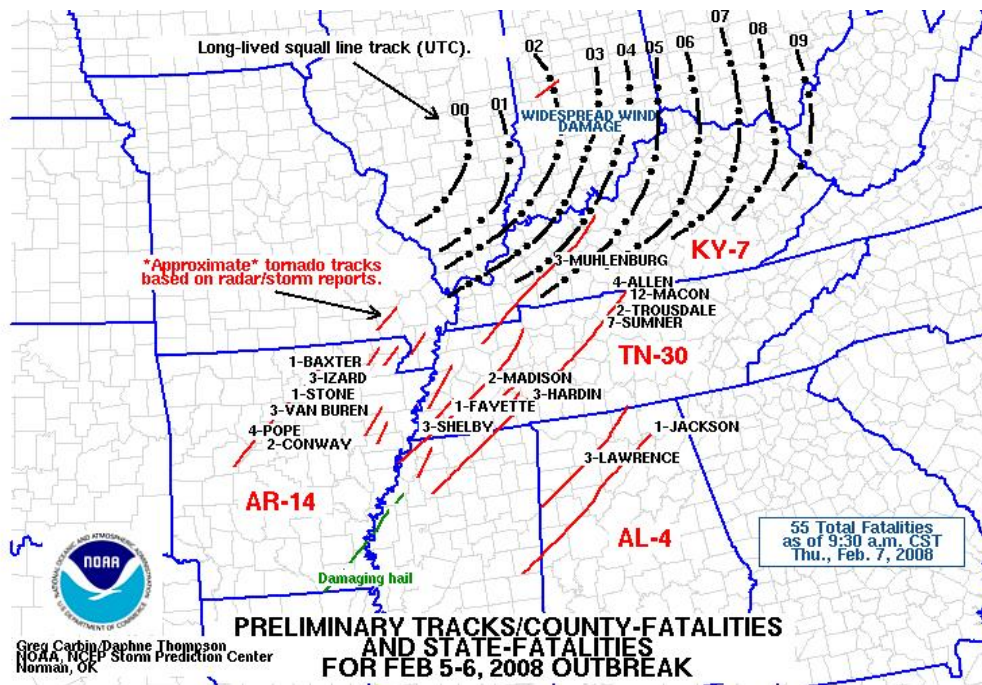


Severe Weather Outbreaks this Year Con't.

February 5-6, 2008

The super Tuesday tornado outbreak hit the Lower Ohio River Valley and the Southeast U.S. again from February 5th-6th. This outbreak resulted in 82 confirmed tornadoes and 58 fatalities. The maximum rated tornado was EF-4. The outbreak was the deadliest in the U.S. since the May 31, 1985 outbreak that killed 76 across Ohio and Pennsylvania. It was the deadliest tornado outbreak in Tennessee and Kentucky since the Super Outbreak in 1974. It tied for the 15th deadliest in U.S. history.

The Super Outbreak in 1974 was the deadliest in U.S. history. The April 3-4, 1974 outbreak produced 148 tornadoes across 13 states, killing 330 people. The Storm Prediction Center storm reports on page 4 show the concentration of severe weather from Texas northeast to the Ohio River Valley. The Storm Prediction Center graphic below illustrates the tracks of the tornadoes and where the fatalities occurred on February 5-6th.



Air Force Weather Agency's New Headquarters

The Air Force Weather Agency (AFWA) will move into its new \$29.7 million headquarters this spring. The 188,000-square-foot three-story facility at Offutt Air Force Base was designed to support 1100 people and will become fully operational over a four-year period. The new facility is certified as a U.S. Green Building Council Leadership in Energy and Environmental Design structure (LEED).

AFWA is comprised of over 1400 active-duty, reserve, civilian, and contract personnel stationed at 20 sites around the world with about 600 of those at Offutt. AFWA's budget is around \$183 million.

The Omaha/Offutt Chapter of the American Meteorological Society will meet at the new facility May 16th. Tours will be provided.



The new Air Force Weather Agency Headquarters
built by Kiewit Building Group Inc.

New Staff at the National Weather Service Omaha/Valley



Khori McFadden-Electronics Technician

Barb Mayes - I transferred recently from the National Weather Service office in Davenport, IA, where I was a forecaster for about 3 years. Before that, I worked at the NWS headquarters in Silver Spring, MD, where I was an outreach and customer service specialist for the climate program. My job at headquarters was to be a liaison between NWS and anybody outside of the government, which meant that I had the opportunity to interact with many different users of climate forecasts, data, and information. I still enjoy working with climate, but I also enjoy forecasting and researching severe weather and fall/winter storm systems, as well as mentoring students and talking about weather and climate to just about any audience. Outside the office, I enjoy watching sports, walking my dog (an 8-year-old black lab mix), exploring good restaurants and shops, and spending time with my fiancé. I received a B.S. in meteorology and geography as well as a B.A. in English from Central Michigan University in 2000 and an M.S. in meteorology from Penn State in 2002.



Barb Mayes-Journeyman Forecaster



Aubrey Wilkins— Student Career Experience Program—SCEP

Aubrey Wilkins-I'm a junior at Creighton University and began working with the NWS as a SCEP this summer in Topeka, KS. I'm from Shawnee, KS, though my parents are currently living in Corpus Christi, TX where my Dad's a pharmacist. My parents love to call me and brag about the weather in Texas throughout the winter, which I don't enjoy since I despise cold weather and driving in snow. I have an older brother who is a First Lieutenant in the Air Force and currently living outside of Seattle, WA with his wife. Aside from weather, I love going to Creighton basketball games, theater, post-it notes, music, napping and hanging out with my friends as much as possible.

Editor's Note: The SCEP program is a paid internship through the NWS. The NWS teams up with a college or university and allows full-time students to attend classes and work at the NWS, gaining valuable work experience. There are specific requirements and an application process.

NWS Omaha/Valley's Rangeland Fire Danger Program

by Scott Dergan, Lead Meteorologist

The National Weather Service in Omaha/Valley began to issue a variety of Fire Weather forecasts beginning in October of 2006. One key factor in the decision to begin this full suite of Fire Weather products was the Texas/Oklahoma wildfires of December 2005 through March 2006. Those fires burned more than a half a million acres of grasslands, and destroyed more than 500 homes. Prolonged drought, combined with persistent warm and windy weather conditions, primed much of the southern and central Plains for widespread fire activity during the spring of 2006. Though not as dramatic as the fires to the south, several grass fires scorched large areas of eastern Nebraska and western Iowa during the spring of 2006.

To help alert Emergency Management and land management officials, as well as local Fire Chiefs, for meteorological conditions conducive for potentially dangerous fire weather situations like occurred in 2006, several Fire Weather products are now available from our Fire Weather web page.

Our Rangeland Fire Danger Index is issued by 6 AM daily with an update around Noon, and provides a simple categorical index of the potential for any grassland fire to get out of control. Five categories, Low, Moderate, High, Very High and Extreme, tell local fire officials the degree to which fires can be contained. An Extreme index would indicate any fire that started would spread quickly and be extremely difficult to control. Fire Chiefs use the Rangeland Fire Danger Index to help them decide whether or not to issue burn permits.

The Fire Weather Planning Forecast is issued by 6 AM daily, and is used by land management officials for planning of controlled burns or pre-suppression activities. This product provides a variety of meteorological parameters and indices specific to fire behavior. The Site Specific Forecast, or SPOT, is similar to the Fire Weather Planning Forecast, but is issued only when land management officials request it. The SPOT forecast provides a somewhat more detailed forecast for the "specific" land area where controlled burns are going to be done.

And finally, our Fire Weather Watch and Red Flag Warning products are issued to alert land management officials and local fire chiefs of the potential for widespread fire ignition or control problems. These products are issued very rarely, and only when relative humidity is expected to be below 20% with winds gusting over 25 mph, combined with extremely dry fuels (grasses, etc.)

Our current conditions suggest widespread fire activity will not be a problem in eastern Nebraska and southwest Iowa, as the U.S. Drought Monitor for Nebraska and Iowa show no drought conditions in our area. However this can change in a relatively short period of time. And daily meteorological conditions could still be conducive for grassland fires, especially before things really green up this spring.

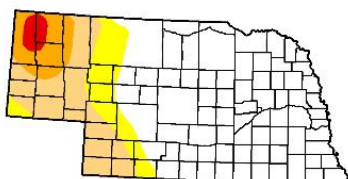
Fire Weather web page:

<http://www.crh.noaa.gov/oax/?n=oaxfirewx>

U.S. Drought Monitor Nebraska

April 1, 2008
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	66.7	33.3	23.8	7.8	1.7	0.0
Last Week (03/25/2008 map)	66.7	33.3	23.8	7.8	1.7	0.0
3 Months Ago (01/08/2008 map)	66.7	33.3	15.8	7.8	1.7	0.0
Start of Calendar Year (01/01/2008 map)	66.7	33.3	15.9	7.8	1.7	0.0
Start of Water Year (10/02/2007 map)	70.9	29.1	13.6	7.0	1.7	0.0
One Year Ago (04/03/2007 map)	59.6	40.4	25.4	18.3	8.7	0.0



Intensity:

D0 Abnormally Dry
D1 Drought - Moderate
D2 Drought - Severe
D3 Drought - Extreme
D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>

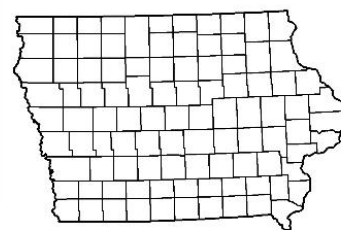


Released Thursday, April 3, 2008
Author: Rich Tinker, CPC/NOAA

U.S. Drought Monitor Iowa

April 1, 2008
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.0	0.0	0.0	0.0	0.0	0.0
Last Week (03/25/2008 map)	100.0	0.0	0.0	0.0	0.0	0.0
3 Months Ago (01/08/2008 map)	100.0	0.0	0.0	0.0	0.0	0.0
Start of Calendar Year (01/01/2008 map)	100.0	0.0	0.0	0.0	0.0	0.0
Start of Water Year (10/02/2007 map)	99.9	0.1	0.0	0.0	0.0	0.0
One Year Ago (04/03/2007 map)	100.0	0.0	0.0	0.0	0.0	0.0



Intensity:

D0 Abnormally Dry
D1 Drought - Moderate
D2 Drought - Severe
D3 Drought - Extreme
D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, April 3, 2008
Author: Rich Tinker, CPC/NOAA

Climatological Data

Compiled by Steve Klemm, Hydro Meteorological Technician

Climatological Data for January, February, and March 2008

Location	Month	Average	Departure	Rain / Snow	Departure	Highest	Lowest
Omaha	Jan	19.9°	-1.8°	0.29" / 6.5"	-0.48"	57° (28th)	-8° (24th/9th)
	Feb	22.1°	-5.9°	0.59" / 6.4"	-0.21"	49° (24th)	-8° (20th)
	Mar	36.3°	-3.0°	1.53" / 0.9"	-0.60"	67° (11th)	0° (7th)
Lincoln	Jan	22.6°	+0.2°	0.44" / 4.9"	-0.23"	60° (28th)	-10° (24th)
	Feb	25.6°	-2.7°	0.55" / 5.1"	-0.11"	55° (24th)	-3° (20th)
	Mar	38.3°	-1.1°	1.13" / 1.1"	-1.08"	71° (11th)	+1° (7th)
Norfolk	Jan	18.3°	-2.1°	0.41" / 9.2"	-0.16"	47° (28th)	-17° (24th)
	Feb	22.4°	-4.0°	0.33" / 3.7"	-0.43"	55° (24th)	-9° (20th)
	Mar	35.4°	-1.6°	1.00" / 1.2"	-0.97"	65° (11th)	-4° (7th)

Normal High/Low Temperatures

Outlook for April, May, and June

Location	Apr 1	May 1	Jun 1	Jul 1
Omaha	58/34	69/45	80/56	87/64
Lincoln	58/33	69/45	80/56	88/64
Norfolk	55/31	67/43	78/54	85/61

The climatological outlook issued March 20th for April, May, and June, calls for equal chances of above, near, or below normal temperatures and precipitation. For additional details and other outlook information, please visit the Climate Prediction Center website at: <http://www.cpc.ncep.noaa.gov/>



Astronomical Calendar

Sunrise/Sunset (http://aa.usno.navy.mil/data/docs/RS_OneYear.html)

	Omaha		Lincoln		Norfolk	
Date	Sunrise	Sunset	Sunrise	Sunset	Sunrise	Sunset
Apr 1	7:06 am cdt	7:50 pm cdt	7:09 am cdt	7:52 pm cdt	7:12 am cdt	7:56 pm cdt
May 1	6:21 am cdt	8:21 pm cdt	6:26 am cdt	8:23 pm cdt	6:26 am cdt	8:28 pm cdt
Jun 1	5:53 am cdt	8:50 pm cdt	5:58 am cdt	8:52 pm cdt	5:57 am cdt	8:58 pm cdt
Jul 1	5:54 am cdt	9:01 pm cdt	5:59 am cdt	9:02 pm cdt	5:58 am cdt	9:09 pm cdt



Times given in cst or cdt.

Moon Phases

New Moon	First Quarter	Full Moon	Last Quarter
Apr 6	Apr 12	Apr 20	Apr 28
May 5	May 12	May 20	May 28
Jun 3	Jun 10	Jun 18	Jun 26
Jul 3	Jul 10	Jul 18	Jul 25



Summer Solstice (Start of Summer)
June 20 06:59 p.m. cdt